IN THE CLAIMS:

Please substitute the following claims for the same-numbered claims in the application:

1. (Currently Amended) A computer-implemented method of mining association rules over transactions from datasets while maintaining privacy of individual transactions within said datasets through randomization, said method comprising:

randomizing an original dataset to create a randomized dataset, said randomizing comprising:

randomly dropping true items from each transaction in said original dataset;

randomly inserting false items into each transaction in said original dataset; and

determining support of an association rule in said randomized dataset;

estimating ~~nonrandomized~~ support of ~~an~~ said association rule in said original dataset based on said ~~randomized~~ support of said association rule in said randomized dataset; and

outputting said association rule if said support of said association rule in said original data set is estimated to be greater than a predetermined minimum, ~~so as to recover said association rule,~~

wherein, due to said randomizing, privacy breaches of said individual transactions are controlled.

2. (Currently Amended) The method ~~in~~ according to claim 1, all the limitations of which are incorporated herein by reference, wherein said randomizing comprises per transaction randomizing, such that randomizing operators are applied to each transaction independently.

3. (Currently Amended) The method ~~in~~ according to claim 1, all the limitations of which are incorporated herein by reference, wherein said randomizing is item-invariant such that a reordering of said transactions does not affect outcome probabilities.

4. (Currently Amended) The method ~~in~~ according to claim 1, all the limitations of which are incorporated herein by reference, wherein said dropping of said true items and said inserting of said false items are carried out to an extent such that the chance of finding a false itemset in a randomized transaction relative to the chance of finding a true itemset in said randomized transaction is above a predetermined threshold.

5. (Currently Amended) The method ~~in~~ according to claim 4, all the limitations of which are incorporated herein by reference, wherein said predetermined threshold provides that the chance of finding a false itemset in said randomized transaction is approximately equal to the chance of finding a true itemset in said randomized transaction.

6. (Currently Amended) The method ~~in~~ according to claim 1, all the limitations of which are incorporated herein by reference, wherein said dropping of said true items and said inserting of said false items are performed independently on said transactions prior to said transactions being collected in a database.

7. (Currently Amended) A computer-implemented method of mining association rules from databases while maintaining privacy of individual transactions within said databases through randomization, said method comprising:

randomizing an original dataset to create a randomized dataset, said randomizing comprising:

randomly dropping true items from each transaction in said original dataset;

randomly inserting false items into each transaction in said original dataset;

collecting said randomized dataset in a database; ~~and~~

mining said database to recover an association rule in said original dataset after said dropping and inserting processes, wherein said mining comprising:

determining support for said association rule in said randomized dataset;

~~by~~ estimating ~~nonrandomized~~ support of said association rule in said original dataset based on said ~~randomized~~ support of said association rule in said randomized dataset; and

outputting said association rule if said support of said association rule in said original data set is estimated to be greater than a predetermined minimum,

wherein, due to said randomizing, privacy breaches of said individual transactions are controlled during said mining.

8. (Currently Amended) The method ~~in~~ according to claim 7, all the limitations of which are incorporated herein by reference, wherein said randomizing comprises per transaction randomizing, such that randomizing operators are applied to each transaction independently.

9. (Currently Amended) The method ~~in~~ according to claim 7, all the limitations of which are incorporated herein by reference, wherein said randomizing is item-invariant such that a reordering of said transactions does not affect outcome probabilities.

10. (Currently Amended) The method ~~in~~ according to claim 7, all the limitations of which are incorporated herein by reference, wherein said dropping of said true items and said inserting of said false items are carried out to an extent such that the chance of finding a false itemset in a randomized transaction relative to the chance of finding a true itemset in said randomized transaction is above a predetermined threshold.

11. (Currently Amended) The method ~~in~~ according to claim 10, all the limitations of which are incorporated herein by reference, wherein said predetermined threshold provides that the chance of finding a false itemset in said randomized transaction is approximately equal to the chance of finding a true itemset in said randomized transaction.

12. (Currently Amended) The method ~~in~~ according to claim 7, all the limitations of which are incorporated herein by reference, wherein said dropping and said inserting are performed independently on said transactions prior to said transactions being collected in said database.

13. (Currently Amended) A computer-implemented method of mining association rules from datasets while maintaining privacy of individual transactions within said datasets through randomization, said method comprising:

creating randomized transactions from an original dataset by:

randomly dropping true items from each transaction in said original dataset, and

randomly inserting false items into each transaction in said original dataset;

creating a randomized dataset by collecting said randomized transactions;

collecting said randomized dataset in a database; and

mining said database to recover an association rule in said original dataset after said dropping and inserting processes, wherein said mining comprises:

determining support for said association rule ins aid randomized dataset;

~~by~~ estimating ~~nonrandomized~~ support of said association rule in said original dataset based on ~~randomized~~ said support for said association rule in said randomized dataset; and

outputting said association rule if said support of said association rule in said original data set is estimated to be greater than a predetermined minimum,

wherein, due to said creating of said randomized transactions, privacy breaches of said individual transactions are controlled during said mining.

14. (Currently Amended) The method ~~in~~ according to claim 13, all the limitations of which are incorporated herein by reference, wherein said process of creating randomized transactions comprises per transaction randomizing, such that randomizing operators are applied to each transaction independently.

15. (Currently Amended) The method ~~in~~ according to claim 13, all the limitations of which are incorporated herein by reference, wherein said process of creating randomized transactions is item-invariant such that a reordering of said transactions does not affect outcome probabilities.

16. (Currently Amended) The method in claim 13, all the limitations of which are incorporated herein by reference, wherein said dropping of said true items and said inserting of said false items are carried out to an extent such that the chance of finding a false itemset in a randomized transaction relative to the chance of finding a true itemset in said randomized transaction is above a predetermined threshold.

17. (Currently Amended) The method ~~in~~ according to claim 16, all the limitations of which are incorporated herein by reference, wherein said predetermined threshold provides that the chance of finding a false itemset in said randomized transaction is approximately equal to the chance of finding a true itemset in said randomized transaction.

18. (Currently Amended) The method ~~in~~ according to claim 13, all the limitations of which are incorporated herein by reference, wherein said process of creating randomized transactions is performed independently on said transactions prior to the transactions being collected in said database.

19. (Currently Amended) A computer program product on a computer-readable medium and tangibly embodying a program of instructions executable by a computer to perform a method of mining association rules from databases while maintaining privacy of individual transactions within said databases through randomization, said method comprising:

randomizing an original dataset to create a randomized dataset, said randomizing comprising:

randomly dropping true items from each transaction in said original dataset;

randomly inserting false items into each transaction in said original dataset;

collecting said randomized dataset in a database; and

mining said database to recover an association rule in said original dataset after said dropping and inserting processes, wherein said mining comprises:

determining support for said association rule in said randomized dataset;

~~by~~ estimating ~~nonrandomized~~ support of said association rule in said original dataset based on ~~randomized~~ said support of said association rule in said randomized dataset; and

outputting said association rule if said support of said association rule in said original data set is estimated to be greater than a predetermined minimum,

wherein, due to said randomizing, privacy breaches of said individual transactions are controlled during said mining.

20. (Currently Amended) The computer program product ~~of~~ according to claim 19, all the limitations of which are incorporated herein by reference, wherein said randomizing comprises per transaction randomizing, such that randomizing operators are applied to each transaction independently.

21. (Currently Amended) The computer program product ~~of~~ according to claim 19, all the limitations of which are incorporated herein by reference, wherein said randomizing is item-invariant such that a reordering of said transactions does not affect outcome probabilities.

22. (Currently Amended) The computer program product ~~of~~ according to claim 19, all the limitations of which are incorporated herein by reference, wherein said dropping of said true items and said inserting of said false items are carried out to an extent such that the chance of finding a false itemset in a randomized transaction relative to the chance of finding a true itemset in said randomized transaction is above a predetermined threshold.

23. (Currently Amended) The computer program product ~~of~~ according to claim 22, all the limitations of which are incorporated herein by reference, wherein said predetermined threshold provides that the chance of finding a false itemset in said randomized transaction is approximately equal to the chance of finding a true itemset in said randomized transaction.

24. (Currently Amended) The computer program product ~~of~~ according to claim 19, all the limitations of which are incorporated herein by reference, wherein said dropping and said

inserting are performed independently on said transactions prior to said transactions being collected in said database.